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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/659,599	09/11/2000	Glenn H. McGall	2719.2001-000	4766

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EXAMINER

EPPS, JANET L

ART UNIT	PAPER NUMBER
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1635

DATE MAILED: 09/20/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/659,599

Applicant(s)

MCGALL, GLENN H.

Examiner

Janet L Epps, Ph.D.

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--Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED**FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.**

Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☒ A Notice of Appeal was filed on 16 August 2002. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

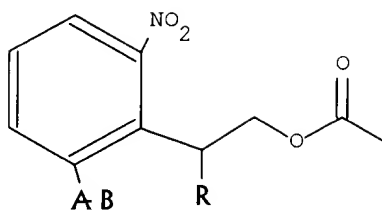
3. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
- Claim(s) allowed: _____.
- Claim(s) objected to: _____.
- Claim(s) rejected: 1-23 and 30-35, for the reasons of record set forth in the Official Action mailed 3-13-2002.
- Claim(s) withdrawn from consideration: _____.
8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☒ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). 19.
10. ☒ Other: see attached

Continuation of 2. NOTE: 1) Applicant's have amended the methods recited in claims 14, 30, and 34 to include additional steps, these additional limitations require further consideration and/or search. 2) Applicant's amendment to claims 30-35 to define the term R is improper since Applicants have deleted the structure which recites the R functional group, this amendment raises new issues under 35 USC 112, 2nd paragraph since it is unclear which "R" group Applicants are referring to.

Continuation of 3. Applicant's reply has overcome the following rejection(s): The rejections of claims 1-2 under 35 U.S.C. 102(b) as being anticipated by Papageorgiou et al., and the rejection of claims 7-12 under 35 USC 112, 2nd paragraph.

Response to Arguments

1. Claims 1-4 remain rejected under 35 U.S.C. 102(b) as being anticipated by Pfleiderer et al. (WO: 96/18637 A2 or US: 5763599), and Claims 1-23 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Pfleiderer et al. in view of Fodor et al. or McGall et al. (5,412,087), for the reasons of record set forth in the Official Action mailed 3-13-2002.
2. Applicant's arguments filed 8-16-2002 have been fully considered but they are not persuasive. Applicants traverse the instant rejections on the grounds that the compounds recited in instant claims 1-23, as amended herein, do not encompass any of the compounds taught by Pfleiderer, accordingly, combination of Pfleiderer with Fodor or McGall does not teach or suggest the compositions or methods of the invention as currently claimed. However, contrary to Applicant's assertions, *MPEP* § 2144.09 states "[a] prima facie case of obviousness may be made when chemical compounds have very close structural similarities and similar utilities. 'An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that compounds similar in structure will have similar properties.' In re Payne, 606 F.2d 303, 313, 203 USPQ 245, 254 (CCPA 1979). See In re Papesch, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) (discussed in more detail below) and In re Dillon, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1991)." In the instant case, the prior art chemical compounds have very close structural similarities and similar utilities as Applicant's claimed compounds. For example, the compounds according to formula I in Pfleiderer et al., particularly the compound according to Example 2, reads on the "Y" photolabile protecting group according to:



wherein $n=0$, B is NO₂, it is noted that the specification as filed does not provide a clear definition for the term aprotic, weakly basic group (a relative term), therefore this limitation is given its broadest reasonable interpretation, and R is H.

Furthermore, as stated in the prior Final Office Action, it would have been obvious to one of ordinary skill in the art at the time of filing to modify the teachings of Pfleiderer et al. with the teachings of Fodor et al. since Pfleiderer et al. clearly states that their disclosed nucleoside derivatives are extremely suitable for the preparation of oligonucleotides, particularly in the methods described by Fodor et al. (col. 28, lines 23-33). One of ordinary skill art at the time of filing would have been motivated to combine the compounds of Pfleiderer et al. with method disclosed by Fodor et al. since Pfleiderer et al. teach that by following the methods set forth in Fodor et al. they were able to achieve an uncomplicated synthesis of oligonucleotides with very high yields, with the result that they are suitable in practice for light-controlled parallel synthesis of oligonucleotides (col. 28, lines 30-33). Additionally, it would have been obvious to one of ordinary skill in the art to modify the teachings Pfleiderer et al. with the teachings of McGall et al. in the design of method for synthesizing oligonucleotides according to the present invention. It would have been obvious since McGall et al. clearly teach that nitro-benzyl photosensitive groups are particularly suitable for use in their disclosed methods, and the photosensitive groups disclosed in Pfleiderer et al. are nitro-benzylic type compounds. One of ordinary skill in the art seeking alternative methods for synthesizing oligonucleotides, would have been motivated to

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substitute one functionally equivalent photosensitive (or photolabile) group, as disclosed in the prior art as useful for the same purpose, for another equivalent photosensitive group.

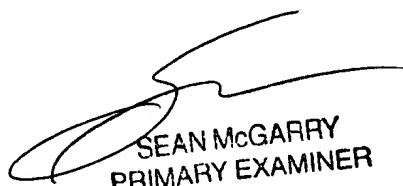
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet L Epps whose telephone number is 703-308-8883. The examiner can normally be reached on M-T, Thurs-Friday 8:30AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John LeGuyader can be reached on (703)-308-0447. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-746-5143 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Janet L Epps-Ford, Ph.D.
Examiner
Art Unit 1635

JLE
September 17, 2002


SEAN MCGARRY
PRIMARY EXAMINER
1635